

WHAT IS CLAIMED IS:

1. In a picture archiving and communication system, apparatus for locating and accessing image data stored on a first image storage unit at a first location and a second image storage unit at a second location comprising in combination:
 - a network extending between the first and second locations;
 - a server located at the first location and connected to facilitate transfer of data between the first image storage unit and the second image storage unit through the network;
- 10 a first imaging device located at the first location and connected to generate for transmission on the network first imaging data resulting from a first patient and first identification data identifying the first imaging data;
- 15 a first interface unit located at the first location and arranged to store first stored image data on the first image storage unit in response to the first imaging data and to store first stored identification data on the server in response to the first identification data;
- 20 a second imaging device located at the second location and connected to generate for transmission on the network second imaging data resulting from a second patient and second identification data identifying the second imaging data;
- a second interface unit located at the second location and arranged to store second stored image data on the second image storage unit in response to the second imaging data and to store second stored identification data on the server in response to the second identification data;

a first workstation located at the first location and connected to create a first image in response to the first stored image data, to create a second image in response to the second stored image data, to view said first and second identification data by accessing said first and second stored identification data in the server through said network and to transmit at least a first request for the second stored image data from the second image storage unit resulting in transfer of the second stored image data from the second image storage unit so that said second image can be created at the first workstation; and

a second workstation located at the second location connected to create a third image in response to the first stored image data, to create a fourth image in response to the second stored image data, to view said first and second identification data by accessing said first and second stored identification data in the server through said network and to transmit at least a second request for the first stored image data from the first image storage unit resulting in transfer of the first stored image data from the first image storage unit so that said first image can be created at the second workstation.

2. Apparatus, as claimed in claim 1, wherein said network comprises a high-speed network.

3. Apparatus, as claimed in claim 2, wherein said network comprises an ATM network.

20 4. Apparatus, as claimed in claim 1, wherein said network comprises a slow-speed network and wherein said apparatus further comprises a first image transfer server located at said first location and a second image transfer server located at the second location, the first and second image transfer servers being connected to transfer the first

stored image data to the second image storage unit through the network and to transfer the second stored image data to the first image storage unit through the network.

5. Apparatus, as claimed in claim 4, wherein the network comprises a T-1 telephone line.

5 6. Apparatus, as claimed in claim 1, and further comprising a radiology information system and wherein a portion of the first identification data is provided by the radiology information system.

7. Apparatus, as claimed in claim 1, wherein the first imaging device comprises a computed tomography unit.

10 8. Apparatus, as claimed in claim 7, wherein the second imaging device comprises a magnetic resonance imaging device.

9. In a picture archiving and communication system comprising a first image storage unit at a first location and a second image storage unit at a second location, a method of locating and accessing image data stored on said first and second storage units comprising in combination:

15 generating at the first location first imaging data resulting from a first patient and first identification data identifying the first imaging data;

20 storing first stored image data on the first image storage unit in response to the first imaging data and storing first stored identification data at the first location in response to the first identification data;

generating at the second location second imaging data resulting from a second patient and second identification data identifying the second imaging data;

storing second stored image data on the second image storage unit in response to the second imaging data and storing second stored identification data at the first location in response to the second identification data;

5 viewing at the first location said first and second identification data by accessing said first and second stored identification data at the first location;

transmitting at least a first request for transmittal of the second stored image data from the second image storage unit to the first location;

creating at the first location a second image in response to the second stored image data transferred to the first location from the second image storage unit;

10 viewing at the second location said first and second identification data by accessing said first and second stored identification data stored at the first location;

transmitting at least a second request for transmittal of the first stored image data from the first image storage unit to the second location; and

15 creating at the second location a first image in response to the first stored image data transferred to the second location from the first image storage unit.

10. A method, as claimed in claim 9, wherein said transmittals occur on a high-speed network.

11. A method, as claimed in claim 10, wherein said network comprises an ATM network.

12. A method, as claimed in claim 9, wherein said transmittals occur on a slow-speed network.

13. A method, as claimed in claim 12, wherein the network comprises a T-1 telephone line.

14. A method, as claimed in claim 9, and further comprising a radiology information system and wherein a portion of the first identification data is provided by the radiology information system.

15. A method, as claimed in claim 9, wherein said generating at the first 5 location first imaging data comprises computed tomography imaging.

16. A method, as claimed in claim 15, wherein said generating at the second location second imaging data comprises magnetic resonance imaging.